The NCMC Bulletin Supplement

Apple Unveils Two New Macs ...and one is a Portable!

UNIVERSAL CITY, CA–SEPTEMBER 20, 1989–Apple Computer, Inc. today added portability and even more power to its Macintosh product family by announcing the Macintosh Portable and the Macintosh IIci. The Macintosh Portable is a full-function Macintosh in a portable design. The Macintosh IIci is a high-performance version of Apple's popular Macintosh IIcx. Running at 25 MHz and offering new capabilities such as built-in video, the Macintosh IIci is the most powerful Macintosh that Apple has ever developed.

"With this announcement, Macintosh becomes the only comprehensive product family in the industry to offer users consistent personal computing," said Jean-Louis Gassée, president of Apple Products. "This means all Macintosh customers have a sweeping range of hardware and application choices—and they're all based on a single, unified software architecture. Perhaps most important, it means that more and more people can find a Macintosh to fit their individual needs."

MacintoshPortable

The Portable incorporates all traditional Macintosh benefits into a system that customers can take with them. Notably, the Portable features advanced screen technology, sophisticated power management, all-in-one design, and complete Macintosh compatibility.

"When we started developing the Macintosh Portable, we set two design challenges: First, it had to be a complete Macintosh; Second, it had to be truly portable." said Gassée. "This meant no compromises. And it required integrating innovative display and power technologies. Our new Portable meets those design criteria: it's a Macintosh through and through. Now our customers can have Macintosh personal computing anywhere."

Advancedscreentechnology

The Portable uses state-of-the-art Active Matrix Liquid Crystal Display technology to achieve the superior graphic capabilities of the Macintosh. This technology enables the Portable to depict the Macintosh graphical user interface, as well as sophisticated graphics, text, and animation with a fast response time, high contrast, and wide viewing angle. The Portable's display size is 640-by-400 pixels, which is 50 percent larger than a Macintosh SE screen and as wide as a letter-size page.

The system also features a video output port. This port can be used with an adapter to drive external monitors, projection video systems or overhead viewplates.

Portability

Macintosh portability is achieved through sophisticated power management circuitry and an all-in-one design. The system's power management components include:

Motorola CMOS 68000: Apple chose the CMOS (complementary metal oxide silicon) 68000 microprocessor from the same Motorola family of micro- processors as those found in all Macintosh personal computers. The CMOS 68000 requires 80 percent less power than standard technology chips. It runs at 16 MHz, providing roughly twice the performance of the Macintosh SE.

Low-power-consumption RAM: The Macintosh Portable contains 1MB of static RAM, which consumes less power than standard dynamic RAM (DRAM). It allows users to work for long periods between battery charges and retains the contents of memory when the system is in sleep mode.

Lead acid batteries: The Portable uses lead acid batteries, which last from 6 to 12 hours (depending on usage and configuration) and can be recharged to full capacity at any time. The voltage of a lead acid battery diminishes gradually as power is used, enabling the computer to provide users with information about the power level. A battery Desk Accessory shows a meter that indicates the charge level left in the battery, much like a fuel gauge. Messages alert users when power is running low.

Separate power management microprocessor: This dedicated microprocessor monitors the activity of each component of the Portable. The Power Manager optimizes power allocation and automatically puts the system into a standby "rest" mode or into a "sleep" mode if the system has been inactive for a preset period as specified by the user. During the rest mode the system operating speed decreases from 16 MHz to 1 MHz. In the sleep mode the power to most components is turned off. Memory contents are retained in both rest and sleep modes. The Portable's Instant-On feature allowscustomers to wake up the system by simply pressing any key on the keyboard.

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The following features comprise the system's all-in-one design:

Integrated pointing devices: The system's integrated trackball and full-size keyboard make it easier for customers to set-up, pack-up, configure and use. The system's trackball can be positioned for left- or right-handed users. It can also be replaced by a numeric keypad. The Portable can also be used with a low-power mouse that is included with the system.

Rugged design: The Macintosh Portable is constructed to withstand the bumps and bangs of everyday use. It is made of rugged polycarbonate plastic, a material also used in motorcycle helmets. SuperDrive floppy disk drive and the optional 40MB hard disk are specially designed to ensure durability.

System expansion: The Portable has expansion connectors for additional RAM and ROM. It also has a connector for an internal modem. Apple today also introduced the Macintosh Portable Data Modem 2400, a 2400-baud internal modem that facilitates communication with other personal computers, minicomputers and mainframes, while maintaining low-power consumption. The Portable's Processor Direct Slot (PDS) is a high-performance slot connected to the microprocessor bus that will support an expansion card. It allows third-party developers to create add-on products to extend the capabilities of the Portable.

It's a Macintosh

The new Portable achieves compatibility with Macintosh hardware and software by integrating the following features:

Macintosh software compatibility: The Portable works with the same thousands of powerful, easy-to-learn software products that have been written for all other Macintosh computers. The Portable uses Macintosh system software version 6.0.4. This is a hardware-support upgrade and is compatible with previous releases of Macintosh system software.

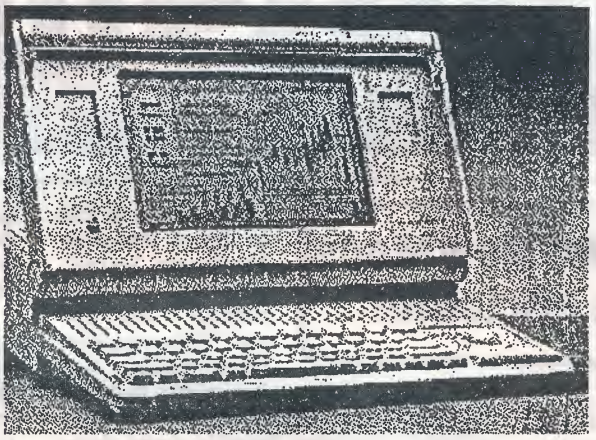
Optional 40MB hard disk: This special low-power internal hard disk is factory-installed with System 6.0.4 and HyperCard 1.2.5, further simplifying setup for the user.

SuperDrive: The Portable includes the 1.4MB SuperDrive, which provides 75 percent more storage capacity than 800K drives, and reads, writes, and formats Macintosh, OS/2, MS-DOS, and ProDOS disks.

Standard Macintosh ports: Seven external ports accommodate peripherals such as hard disks, printers and input devices. The Portable's serial ports provide LocalTalk support, which allows the Portable to connect to a LocalTalk network and take advantage of AppleTalk Network services such as AppleShare servers, LaserWriter printers and other devices.

Apple Stereo Sound capability: The Portable features the same high-quality digital sound capabilities as found in the Macintosh modular line and in the SE/30.

The Macintosh Portable comes standard



with 1MB of RAM and SuperDrive and weighs 15.7 pounds with the battery and optional 40MB hard disk. Without the hard disk, the Portable weighs 13.7 pounds. It also features an optional mouse, handy pocket reference guide and durable carrying case.

Relatedproducts

Apple is also offering several other related products and accessories for the Portable, including the Macintosh Portable Data Modem 2400, Rechargeable Battery, Battery Charger, Numeric Keypad Module, and 1MB Memory Expansion Kit. Also available from Apple are the Macintosh Portable Internal SuperDrive and Internal 40SC Hard Disk. Apple plans to announce the availability of the Macintosh Portable Video Adapter at a later date.

Apple expects the Portable to appeal to a broad range of customers across all application areas.

MacintoshIIci

The new Macintosh IIci is the highest performance personal computer that Apple has ever shipped. It delivers up to a 55 percent performance increase, when compared to the Macintosh IIcx and IIx. Additionally, it offers new capabilities—such as built-in video—and incorporates the same flexible design and hardware features as the popular Macintosh IIcx.

"We define performance in human terms," said Gassée. "A truly powerful system is responsive, makes people better at what they do and is enduring. As the Macintosh IIci demonstrates, real performance doesn't come from just raw processing power. It comes from the balanced integration of hardware, peripherals, system software and the human interface. "

Performance

The Macintosh IIci computer's higher performance derives from a balanced system design, which features a faster microprocessor and performance enhancements that optimize the microprocessor's capabilities. The combination of these features enables the entire range of Macintosh applications to calculate, reformat, enlarge, scan, search, resize, scroll, redraw and paint faster than any Macintosh has ever been able to do before.

Additionally, the system features a connector for a cache card, which can further boost the overall throughput of the system.

Faster clock speed: Motorola 25 MHz 68030 and 68882. The combination of the 68030 microprocessor and the 68882 floating-point coprocessor running at 25 MHz represents the most significant new feature of the Macintosh IIci. (The Macintosh IIcx and IIx run at 16 MHz.)

Burst-mode RAM access: The burst-mode RAM access capability of the 68030 allows the microprocessor to read blocks of memory more efficiently than in previous architectures. As a result, the system requires fewer clock cycles to process groups of instructions, further accelerating the system's performance.

Faster DRAM: The system uses 80 nanosecond DRAM to match the increase in the microprocessor's clock speed and burst-mode RAM access. Additionally, the ROM code takes full advantage of the 68030's 256-byte instruction cache.

RAM cache connector: The system's built-in cache connector provides users with the ability to install a cache card that can increase performance by storing the most-recently accessed data and instructions in a small bank of high-speed memory. The microprocessor can read data and instructions from the cache in fewer clock cycles than it can read from main memory. A cache card can improve the performance of a system by up to an additional 30 percent (for a 75 percent overall increase) in performance, depending on the configuration and usage. Apple

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Apple/MS Agrees on Outline Fonts

SAN FRANCISCO,CA–SEPTEMBER 19, 1989--Apple Computer, Inc. and Microsoft Corporation today announced a cross-license agreement for outline font technology and printer software to be standard across the Apple Macintosh and Microsoft OS/2 Presentation Manager platforms. Microsoft will license Apple's outline font technology for inclusion in future versions of Microsoft OS/2 Presentation Manager. Apple will license printer software from Microsoft for implementation in future versions of the Apple LaserWriter printer. The Microsoft printer software incorporates the Apple font format.

Apple's outline font technology was announced in May, 1989, to significantly improve the quality and flexibility of font support for the Macintosh. Now Microsoft will bring this same open font format to OS/2 Presentation Manager, allowing the easy exchange of rich text documents between these two desktop platforms.

"Apple's innovative image font technology is emerging as the foundation for desktop computing in the 1990s," said John Sculley, Apple's chairman and CEO. "Users can now take advantage of this high-quality, standard printing and font solution on the Macintosh and across other key computing environments."

"Apple has really led the way in enhancing the use of font technology in desktop platforms," said Bill Gates, Microsoft Corporation chairman and CEO. "Our establishment of a common font format and common printer software will bring power, flexibility and standardization for screen and printer output to the Macintosh and OS/2 Presentation Manager."

"Scalable font technology is an essential part of the rich graphic environment that will characterize computing in the 1990s," said Jonathan Seybold, president of Seybold Publications and Seminars. "The agreement is probably the most important development in the computer industry this year."

Outline Font Technology

The outline font format is an open standard that all hardware, software and font vendors can support. Nearly a dozen leading type vendors and as many software developers have already announced support for this font standard (see attached list). Today's agreement between Apple and Microsoft means that these type vendors will easily be able to support both the Macintosh and OS/2 Presentation Manager.

Apple's font technology includes the specifications for a powerful instruction set that controls characters for printing or screen display at low resolution, while preserving excellent quality at high resolution.

Outline fonts are mathematical descriptions of text characters that allow the computer to accurately display text at any size on any screen or printer. Bit-map fonts, widely implemented in current screen output devices, are device-specific and consequently cannot be easily displayed on different devices without severe limitation on memory and flexibility.

Advantages for Applications S/W

The outline font format will make it easier for applications to have high-quality output from either the Apple Macintosh or OS/2 Presentation Manager. Now, users will be able to purchase a single font library for both systems and be assured of the type quality previously available only on dedicated typesetting and publishing systems.

"Many people use WordPerfect to do high-end word processing and desktop publishing on both OS/2 and Macintosh platforms and require high-quality scalable fonts both on screen and in print," said Derrick Shadel, vice president of development, WordPerfect Corporation. "We welcome standards like this that provide consistency across these platforms and are open to a variety of vendors."

Microsoft Printer Software Enables WYSIWYG Documents

A standard outline font format for screen output is one half of the equation for high-quality document production. The second half is the availability of standard printer software that incorporates the same font format as used for screen output. This printer software meets both these criteria.

The printer software is based on source code from Bauer Enterprises of San Jose, California, acquired by Microsoft in July 1989. It is compatible with Adobe PostScript printer language and has enhancements for compatibility with OS/2 Presentation Manager and Macintosh.

The new printer software provides a high-level description of a page to a printer. It accepts input from the host system and translates it into a series of commands describing which pixels of the page to mark with ink.

With its support for the outline font format, the new printer software enables creation of sharp text of any size or font type on any printer that uses this software. As a result, what the user sees on the screen is what prints on the page.

Microsoft will sublicense the printer software to third-party OEMs. The Bauer Enterprises printer software was previously licensed to many leading printer vendors, so Microsoft anticipates that the new software will quickly gain acceptance in the printer market.

Availability

The outline font technology announced today will be incorporated into future versions of OS/2 Presentation Manager and Apple Macintosh. Pricing and availability will be announced at a later date.

Apple Computer, Inc. develops, manufactures, and markets personal computer systems for use in business, education, science and engineering, government and the home. A recognized pioneer and innovator in the personal computer industry, Apple does business in more than 85 countries.

Microsoft Corporation develops, markets and supports a wide range of software for business and professional use, including operating systems, languages and application programs, as well as books, hardware and CD-ROM products for the microcomputer marketplace.

Font Vendors Announce Support For Outline Font Format

The following leading type vendors have announced support for the outline font standard adopted by both Apple Computer, Inc. and Microsoft Corporation.

AGFA Compugraphic
Bigelow & Homes
Bitstream Inc.
Casady & Greene Inc.
International Typeface Corporation
Kingsley/ATF Type Corporation
Letraset USA
Linotype AG
Monotype Corporation
The Font Bureau, Inc.
URW of West Germany

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plans to announce a RAM cache card in early 1990.

Built-invideo

The Macintosh IIci computer's built-in video capability lets users connect a monitor to the system without using a video card. The built-in video drives a 640-by-480-pixel screen, such as the AppleColor High-Resolution RGB Monitor or Apple High-Resolution Monochrome Monitor, at up to 256 colors or gray levels, or a 640-by-870-pixel screen, such as Apple's Portrait Display, at up to 16 gray levels. Built-in video for the Macintosh IIci is self-configuring. Users simply plug in a video cable to the video port. Built-in video also increases the expansion capabilities of the system by freeing up a NuBus slot.

Additionalfeatures

512K of ROM: The Macintosh IIci features 512K of ROM, which provides support for the new hardware features (built-in video, burst-mode RAM access, optional cache) in the Macintosh IIci, and for 32-bit addressing. When used with System 7, Apple's next major release of Macintosh system software, the Macintosh IIci will be able to address up to 4 gigabytes (4 billion bytes) of memory. The ROM also includes support for 32-Bit QuickDraw, enabling color systems to display up to 16 million colors simultaneously with the appropriate graphics card support.

IIcx design: The Macintosh IIci shares the same flexible design as the Macintosh IIcx. It has a small footprint, can be set vertically or horizontally and it is designed for easy serviceability. It also has the auto- restart and low noise features of the IIcx.

The hardware features that the Macintosh IIci shares with the IIcx include three NuBus slots, 1MB to 8MB (up to 32MB with future memory chips), Apple Stereo Sound capabilities, the internal SuperDrive and an internal 3.5-inch hard disk. As with all other 68030-based systems, the microprocessor's built-in Paged Memory Management Unit (PMMU) can be used with A/UX, Apple's UNIX system and with future versions of the Macintosh operating system.

Expansion capabilities: The system also features the same set of external ports as the IIcx, and includes a video connector to support the built-in video. Additionally, by using the Macintosh IIci computer's built-in video capability customers have all three slots available for other cards.

The Macintosh IIci can be configured from 1MB up to 8MB of RAM on the logic board and accommodates either 40MB or 80MB 3.5-inch, half-height hard disks from Apple and larger disks from third parties. The system can also be preconfigured with A/UX. Each Macintosh IIci includes a mouse, System Software 6.0.4, HyperCard 1.2.5, SuperDrive, and all documentation.

Apple believes the Macintosh IIci will appeal to a broad range of users who want more power.

Upgrades

Macintosh IIcx customers can upgrade their systems with a Macintosh IIci Logic Board Upgrade Kit that consists of the logic board, as well as a bottom case to accommodate the video connector. The Logic Board Upgrade Kit is scheduled for release later this year.

Macintosh IIci-specific DRAM kits in 1MB and 4MB configurations are available immediately for IIci customers who want to upgrade their systems.

Price and availability

The Macintosh Portable and Macintosh IIci are available immediately through all authorized Apple certified dealers and VARs.

Suggested retail prices (in US $) for the Macintosh Portable and peripherals:

Macintosh Portable:

•1Mb/SuperDrive	$5,799
•1Mb/40MbHD/SuperDrive	$6,499
•Data Modem 2400	$449
•1Mb Memory Exp. Kit	$649
•Rechargeable Battery	$49
•Battery Recharger	$129
•Numeric Keypad Module	$69
•SuperDrive Upgrade	$499
•Internal 40SC Hard Disk	$1,199

Suggested retails prices (in US $) for typical Macintosh IIci configurations:

Macintosh IIci:

•1Mb/SuperDrive	$6,269
•1Mb/40MbHD/SuperDrive	$6,969
•4Mb/80MbHD/SuperDrive	$8,669
•4Mb/80Mb/A/UX installed	$9,152
•Logic Board Upgrade Kit	$2,399
•1Mb Memory Exp. Kit	$499
•4Mb Memory Exp. Kit	$1,999

Keyboards for the Macintosh IIci and all other peripherals are sold separately.

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System 6.0.4 & HyperCard1.2.5

UNIVERSAL CITY, CA–SEPTEMBER 20, 1989–Apple Computer, Inc. today announced System Software 6.0.4 and HyperCard 1.2.5.

ProductDescriptions

System Software: System Software is the operating system for the Macintosh personal computer family.

HyperCard: HyperCard is a personal software kit that gives Macintosh users the power to customize, create, and manage information using text, graphics, sound, music, voice, and animation.

Significance

System Software 6.0.4 is a revision of System Software 6.0.3 to support the Macintosh Portable and the Macintosh IIci. Both System Software and HyperCard versions are intended for users of the new Macintosh Portable and the IIci. The installed base does not have to upgrade to these releases. System Software versions 6.0.2, 6.0.3, and 6.04 will coexist in networked environments. Users will need to upgrade to System Software 6.0.4 to use HyperCard 1.2.5.

Availability

System Software 6.0.4 and HyperCard 1.2.5 are available immediately.

Update Policy: Stand-alone versions of System Software 6.0.4 and HyperCard 1.2.5 can be purchased separately for US $49.95 each.

Distribution Channels: System Software version 6.0.4 is available through all certified Apple dealers, resellers, and electronic bulletin boards. HyperCard 1.2.5 is available through Apple dealers, resellers, licensed Macintosh User groups, and APDA. Both versions will also be packaged with all new Macintosh personal computers beginning immediately.

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